STATE OF DELAWARE
INFORMATION SERVICES TASK FORCE
REPORT TO GOVERNOR RUTH ANN MINNER

e-VOLUTION:

REDEFINING DELAWARE'S IT MANAGEMENT STRATEGY FOR THE 21ST CENTURY

May 8, 2001

THE TASK FORCE

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Table of Contents

I. EXECUTIVE SUMMARY

State and local governments nationwide will spend $38.8 billion on technology in 2001, representing 5.4 percent growth from 2000.[1] By 2004, Federal Sources Inc. estimates that state and local spending on technology will be $45.3 billion. In addition, spending on information technology (IT) for state and local governments is increasingly taking a larger portion of the overall budgets.

In the State of Delaware, this trend is expected to be no different. Over the last four years, IT spending on hardware and software has nearly doubled to $144 million.[2] Including technology personnel, total IT spending is approximately $190 million, or about 8-9% of state revenues. Over the next five years, if total IT spending doubles again and if state revenues grow 3% per year, IT will represent about 15% of state revenues.

Delaware's investments in technology can be seen throughout state government in recent years. The State recently unveiled its new portal (www.delaware.gov) as a first step toward improving its delivery of government information and services over the Internet. The Division of Revenue has effectively used technology to enable online tax filing and rapid refunds. The Department of Public Safety implemented an on time and on budget Real Time Crime Reporting initiative to enable crime fighters to search crime information on a web-based application, thereby leading to more effective police enforcement. And the Division of Corporations continues to effectively use technology to provide excellent service to its corporate clients.

Although there have been some successes in recent years, there have also been numerous project failures, including cost overruns and missed deadlines. The reasons are many. These shortcomings have been documented and the time to address these issues is now. Improvements in vision, leadership, the funding process, project management, accountability, and communication are crucial to the success of the State's technology initiatives.

Recognizing the increasing importance of technology development to the effective functioning of Delaware's state government, Governor Ruth Ann Minner established the Information Services Task Force by Executive Order Number Two on January 4, 2001. This Task Force was formed to make statutory and organizational recommendations regarding how the State can improve its management of information and information technology. The Governor is concerned that much of the State's spending on IT was not achieving the desired result. In fact, the Governor's focus on technology and on its role in serving citizens is longstanding, going back at least to 1993, when she led the Minner Commission on governmental effectiveness. She is an advocate for excellent service and understands the role of technology in making such service possible.

[1] Dibya Sarkar. "Government IT spending on rise." CIVIC.COM http://fcw.com/civic/articles/2001/0319/web-fsi-03-20-01.asp Accessed on April 12, 2001

[2] State of Delaware. Annual Technology Expenditure Report. Office of Information Services. August 2000.

The Task Force conducted approximately 40 interviews with approximately 95 users and partners of the State's information technology systems. The interviews provided a substantial amount of evidence and personal testament to both the strengths and weaknesses of the State's current approach to managing information and technology.

This study addresses a variety of factors influencing the quality of IT management and development in Delaware. It is not focused solely on the Office of Information Services (OIS), the State's primary agency responsible for providing statewide direction for information technology. In fact, although we recommend a number of changes that relate to OIS, we also note that a number of areas out of the control of OIS have contributed to the State's problems in producing effective and efficient IT management.

We recommend that the State:

1. **Redefine the role of the Chief Information Officer (CIO) and hire an executive with the appropriate skills.** The CIO position, as currently structured, does not have the required stature. The lack of executive level support for the CIO is one of the reasons Delaware has struggled with its statewide IT direction. The CIO should combine a number of strengths including leadership experience, an understanding of business and technology, as well as good communication and negotiation skills.
2. **Establish a Technology Investment Council to evaluate and prioritize statewide IT spending and projects.** There is currently no clear, consistent methodology to evaluate the merits of information technology projects on a statewide basis, nor is there an appropriate forum for such evaluations.
3. **Create the Department of Technology and Information.** This new organization will function largely as a "General Contractor", whose mission is to assure delivery of technology capabilities, including more extensive management of relationships with strategic business partners.
4. **Change funding methodologies to allow more fiscal and management efficiencies**. Tracking of funds spent on technology projects is currently very difficult. The overall funding process must be simplified.
5. **Develop a new structure for managing and compensating technology employees**. The State has many excellent technology employees. We need to create a better environment to retain them and to attract new employees over a period of time.

II. INTRODUCTION

The way Delaware manages information and information technology will determine how prepared it is for the challenges the State will face in the 21st century. Technology will become more important to fulfilling the State's mission; and it is clearer than ever that the State cannot continue to manage technology as it has in the past.

Realizing the challenges we face, newly elected Governor Ruth Ann Minner issued an executive order and created this Task Force to make recommendations on how to improve the management of information and information technology in Delaware state government. New technologies in and of themselves are not the goal. Rather, our focus is on improving the way we provide state services.

The Current Environment

Those who use the State's information and information technology are particularly knowledgeable regarding the State's IT management. With few exceptions, they are dissatisfied. Although they identify talented employees of OIS, they are concerned that external factors (including the State's funding process for IT projects, the transformation OIS went through several years ago, and the labor market) make the job of OIS virtually impossible, absent significant changes. The Task Force interviewed approximately 95 individuals and found consensus that in the current environment:

Leadership Must be Improved

- Statewide technology standards are not uniformly enforced or disseminated.
- Accountability for technology projects is unclear.
- Agencies believe there is no "statewide view" of technology, so they feel they are not gaining the advantages of lessons learned by other agencies.
- OIS's mission is unclear.
- OIS is simultaneously a competitor and a partner, so agencies are uncertain how to deal with their contacts at OIS. Similarly, agencies indicated they believe OIS does not know how to work with agencies to best assure their needs are met.

Project Management skills need to be improved

- Needs assessments are not routinely done.
- Risk management tools are not used enough.
- Post implementation reviews are not routinely performed.
- OIS lacks expertise to write RFPs on many subjects.

Management of technology expenditures needs to be improved

- Funding responsibility for technology projects and services between OIS and agencies is not clearly delineated.
- Projects are funded incrementally leaving managers "guessing" about availability of future resources.

- Agencies cannot rely on the level of resources provided by OIS to be consistent.
- It is unclear how technology funds are spent.
- Spending for specific technology projects is not tracked over time.
- Agencies with non-general funds have greater freedom to initiate projects.
- The quality of cost/benefit analysis of new projects is often lacking.

The State needs to improve its ability to recruit and retain staff

- The compensation system is perceived to be inflexible.
- The State's personnel structure and rules are too limiting.
- Training needs to be enhanced.
- It is difficult to hire qualified "experts."
- It is easier to hire contractors and pay them more than it is to hire full time staff.

This is not the first time technology users in Delaware state government have expressed these views. The following studies revealed similar concerns:

- January 1996 – Interviews conducted by Sam R. Stivers Associates, Wellesley, MA
- July 1996 – Customer Expectations Survey Conducted
- July 1999 – Customer Satisfaction Survey Conducted

The Technology Environment

The State is trying to improve its management of information technology at a time when technology is increasingly important to all types of organizations. Our recommendations must be considered in the context of the environment for IT generally:

- Technology is becoming increasingly important to the successful management of government operations.
- The labor market for skilled technical workers is extremely tight (with approximately 450,000 private sector jobs unfilled according to the Information Technology Association) and is not likely to significantly improve anytime soon. U.S. companies expect to create 900,000 new IT jobs this year.[3]
- The average wage for technologists across the country is 76% higher than the nation's average wage; IT wages are rising twice as fast as wages in other industries. Employers in Delaware have 44,280 people in IT jobs, with an average wage of almost $68,000.
- It is very difficult for the State to compete for top notch technical human resources.
- The Merit System hinders needed flexibility in reclassifying positions and in instituting other policies, which will attract and retain skilled workers.

[3] Esteban, Parra. "Still Wanted: High-Tech Workers." News Journal. April 16, 2001.

III. RECOMMENDATIONS

1. The Chief Information Officer (CIO)

> "The top challenges facing IT management going forward will be prioritization of worthy yet competing initiatives and allocation of scarce human and financial resources to execute those priorities. To successfully meet these challenges will require a radical shift in the core competencies of the CIO, from 'technology guru' to business strategist. Those who cannot master this complex transition will become marginalized as the next generation of CIOs passes them by."[4]

We recommend the appointment of a Chief Information Officer (CIO) who will also serve as Secretary of the new Department of Technology and Information (see recommendation number three). The CIO should be a technology literate person who understands the core objectives of the government. The CIO should combine a number of strengths including leadership experience, an understanding of business and technology, as well as good communication and negotiation skills.

An effective CIO in government must be a clear thinker as well as a technology visionary, who can clearly communicate the government's objectives to technology experts, as well as the benefits and risks of technology to government leaders. "CIOs must have a broad, strategic view of the business and of the technology's role in implementing that strategy. CIOs should be a general manager first and a technologist second."[5]

As a principal member of the Governor's cabinet, the CIO must be a proactive leader in setting the State's technology vision and will only be successful if the Governor shares the same vision and stands four-square behind the CIO. The CIO should sit at the same table as the other cabinet level officials and be a participant in the strategic decision making process as well as interact with the Governor on a regular basis. The CIO will advise the Governor on all issues regarding the management of information and information technology. The CIO will be accountable for delivering the agreed upon technology strategy and plans that will enable the Governor to set priorities for a sound technology budget that is fiscally responsible from year to year. As discussed in the following section, the CIO will also lead the Technology Investment Council, where skills of facilitation and negotiation will be as important as managerial and quantitative skills.

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[4] Hackett Benchmarking & Research Study Finds More CIOs Gaining Strategic Role; Most Remain Hamstrung by Outdated Mindsets, Processes." PR Newswire Association, Inc. March 7, 2001.

[5] Lindamood, G. "Getting IT: Having a CIO and treating the CIO like a CIO ain't the same thing." Government Technology June 2000. < www.govtech.net > Accessed on February 21, 2001.

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The CIO will have four primary responsibilities:

1) To serve State agencies in executing agreed upon technology strategies, plans, and projects by ensuring the timely delivery of quality technology solutions, products, and services on a cost effective basis, including setting and maintaining appropriate standards and managing relationships with, and the performance of, selected third party technology vendors.

2) To serve as chair of the Technology Investment Council, which shall set technology priorities within an overall technology budget. Additionally, the CIO, with the assistance of the Technology Investment Council, shall ensure that major technology projects deliver promised benefits, on time and on budget and consistent with the State's information architecture and technology life cycle.

3) To build, develop, motivate, and retain a high performing team of technology professionals that will enable the State of Delaware to achieve its technology vision, strategies, and specific performance objectives.

4) To develop, implement, maintain, and improve a technology life cycle that includes establishing a consistent framework for all information projects and a governance process that ensures the information architecture and information capability is appropriate for the business of government in the State of Delaware.

2. The Technology Investment Council

One of the most needed improvements is in the quality of information available to the Governor and her senior advisors when they decide on technology initiatives. In order to achieve this improvement, we recommend that a Technology Investment Council be established which will set policy and strategy, as well as propose, review, and prioritize the statewide technology investments and initiatives. The Governor should appoint seven to nine members to serve on this council including the State's Chief Information Officer (CIO), who shall serve as chair, one representative from the Judiciary, one representative from the Controller General's Office, one representative from public education, and three to five other individuals to be chosen at the Governor's discretion. The success of this council will be dependent upon its members taking the work of the council seriously and not delegating their representation to more junior members of their staffs.

It is important that the members balance a deep understanding of the business of government with expertise in technology. The Governor should appoint members who:

- do not lose sight of the government's core mission when confronted with technological decisions.
- are interested in well coordinated technology initiatives that span agency boundaries.
- recognize that technology is not a magic elixir that fixes an under-performing business process.
- recognize that technology is not an end in itself, but when used properly, it is a tool for enabling the business of government.
- place the State's priorities over those of their own particular agency should they be affiliated with a particular agency.

The Council will:

- set priorities for technology investments and initiatives.
- assist the Budget Office in developing an information technology budget to reflect the total amount being spent on technology.
- set statewide standards and ensure that projects follow relevant guidelines and standards.
- identify projects that can cross agency and program lines in order to leverage resources.
- help to develop and support an integrated technology investment plan for the State.
- review the progress of current projects to determine if they are on budget, have met their project milestones, etc.
- oversee, evaluate, and recommend the termination of projects.

The Technology Investment Council will not usurp the responsibility of agencies to focus on their own business practices. Agencies must have the right to determine their business priorities and to influence decisions regarding the extent to which technology is used to fulfill their mission. The Task Force recommends that each major agency ensure they have in place a high performing Agency CIO to collaborate and coordinate with the State CIO and the Technology Investment Council. Agencies with strong CIOs who are technology savvy and who have a clear understanding of the agency's objectives will function best in this environment.

Decisions before the Technology Investment Council should be based on facts and analysis, including careful consideration of project costs and benefits.

It is recommended that a small cadre of staff, working directly for the CIO, meet regularly with the Agency CIOs prior to council meetings to ensure that the applying agency and the council are well prepared to review an application for a particular technology initiative.

3. Create the Department of Technology and Information

We take as a fundamental assumption that the State of Delaware is not in the business of developing technology solutions, but must utilize technology as an enabler in delivering governmental services. In most cases, the technology solutions employed are not unique and are not a source of competitive advantage to the State (the Division of Corporations is an example where technology is a source of such advantage). It is accepted as good practice by many leading organizations to focus internal resources on those situations where unique technology solutions can bring competitive advantage, and to employ the technology expertise of outside providers for those situations where routine solutions are appropriately employed.

With this distinction in mind, and with the understanding that for all the reasons noted earlier that it will be difficult for the State to attract and retain large numbers of skilled technology personnel, we must be certain that the State's technical resources are focused on those areas core to our State's mission and not scattered broadly in areas of lesser importance.

We recommend the creation of a new Department of Technology and Information (DTI), which will serve as the chief architect and general contractor for IT in the State. A handful of functions should be housed within DTI. Non-strategic IT functions should be provided by world-class technology providers specializing in these functions. Partnerships with IT service vendors who understand the latest technologies and keep up with rapid changes in the field will allow Delaware to focus internal resources on core competencies and strategic IT issues while also obtaining first class capabilities in other areas.

More specifically, by obtaining a portion of our State's technology needs from top-rated third party vendors, the State will:

- gain additional flexibility;
- achieve the advantages inherent in having vendors compete against each other;
- avoid the bias that generally creeps into IT departments who like to create new things from infancy; and
- offer employee development opportunities to our IT employees that we could never match internally.

Is anyone else using third party vendors?

"I am convinced a majority of IT shops today will be outsourced by 2005",[6] says Sam Albert, the president of a New York IT industry analyst and management firm. The Outsourcing Institute, based in Jerico, NY, projects the outsourcing market will exceed $400 billion this year. The Task Force's research has found that IT-smart organizations realize they are unlikely to keep up with every skill they need. They aspire to real

[6] Lynch, Rebecca. "Hands On, Hands Off." CIO Magazine Aug. 15, 2000.

technical depth only where it creates competitive advantage. Jim Infinger, CIO at Raytheon recommends, "Identify what is strategic and never outsource it. Identify what is tactical and always outsource it."[7] San Diego County's CIO Tom Boardman, is absolutely convinced that the best way to provide IT services is to outsource it.[8] Diane Drum, DuPont's Global IT Planning Manager, says that IT outsourcing has enabled them to better service their customers, respond faster to technology changes, and extend development opportunities for DuPont IT people.[9]

For other organizations, effective use of third party vendors has been a win-win for employees and employer. Those employees who have chosen to move to the outsourcing firm typically have better career opportunities than those who stay, in terms of compensation, access to training, and other similar benefits.

The Task Force believes it is critical to promote the interests of employees working in functions being moved to a third party vendor. Specifically, we recommend that these employees have an opportunity to:

a) be considered for a position in DTI or
b) remain in OIS until it ceases to exist (with traditional rights under the Merit Rules thereafter) or
c) move to the organization selected to provide the relevant function or
d) find another position in State government consistent with the Merit Rules.

The CIO will have the responsibility to direct the outsourcing process and report that progress on a regular basis. Clear communication with existing employees will be key.

How do we decide what to outsource?

The decisions on which functions to outsource and which functions to retain in-house need careful analysis. A clearly defined strategy for outsourcing will allow us to determine whether the function meets defined guidelines. In the absence of such a strategic view of outsourcing, internal expectations will conflict, and confusion will reign.

The strategy should be put in writing and given to any employee who is likely to be involved in the outsourcing process.

Below are questions we should ask ourselves when determining which functions to outsource and which to keep in-house:

- Does the State need to own the activity to differentiate itself from other states?
- Are we restricted by confidentiality rules and regulations such that outsourcing of a particular function is not a viable option?
- Does the State believe it has a unique capability or core competency that cannot easily be accessed elsewhere?

[7] Telephone interview with Jim Infinger, April 3, 2001.
[8] Telephone interview with Tom Boardman, April 2, 2001.
[9] DuPont IT Outsourcing presentation to the Delaware Task Force, April 5, 2001.

- Is there financial advantage to keeping the activity in-house? (Total cost of ownership must be considered)
- Does the State believe it would be unable to appropriately control a third party vendor of a product/service?
- Is it less risky to develop in-house?
- Is the State capable of developing, maintaining, or operating the product or service better or cheaper than outside?

Based on answers to these questions as well as the Task Force's sense of which IT capabilities are core to the ability of the State government to exploit technology successfully, we recommend that a handful of responsibilities remain in-house and be significantly improved. This list includes network architecture, establishing and enforcing standards, informed IT purchasing (including RFP preparation and evaluation as well as contract negotiation and monitoring), project management, very strategic application development (only in the few cases where it would be unwise to use outside vendors), management of third party vendors, and the consultancy function to work with agencies. Other IT functions are prime candidates for outsourcing.

The Task Force recommends that the CIO move aggressively to identify initial areas to be outsourced using the questions above as a guide and that the CIO report regularly to the Technology Investment Council on the State's progress in implementing relationships with third party vendors. DTI will be the lead agency in managing third party vendors.

4. Funding Technology

The Task Force has three recommendations for funding technology. In summary, they are:

A. **Process** – Clearly define the role of the Technology Investment Council, CIO, and others in the budget process. Establish a Technology Priority List and a Technology Budget Plan.

B. **Appropriations** – Establish a clear forum and process for funding all technology projects regardless of funding source. Appropriations, both Capital and Operating, may be made directly to a Technology Investment Account.

C. **Tracking** – Funding should be tied to needs assessment, risk management, quality assurance, and post implementation review. Tracking funding by project is the only way to monitor progress of technology projects and enforce quality assurance techniques.

A. Process:

The Technology Investment Council will assume responsibility for vetting many agency project requests through a uniform needs assessment and cost benefit analysis. Uniformly accepted documentation for needs assessments, cost benefit analysis, quarterly reporting, and risk analysis shall be approved by the Technology Investment Council.

Although the Agency CIOs are responsible for completing all required assessments and continuing risk analysis, the Technology Investment Council, with the assistance of the DTI staff, will validate the accuracy and implied conclusions of all data provided by the agencies.

The Agency CIOs, armed with standardized and accepted analytical tools provided by the Technology Investment Council, will be charged with providing evidence that the business functions of the agency, state, and citizens will be improved or critically maintained through the use of the technology requested. It is vitally important that the Agency CIOs have the proper skills to translate business needs into technology initiatives, and to evaluate the effectiveness of those initiatives upon completion.

The Technology Investment Council will be responsible for gathering information and maintaining the statewide coordination of new and ongoing technology projects. The council and staff will also validate the achievement of ongoing risk analysis benchmarks prior to continued funding. This process will yield and maintain a dynamic statewide **Technology Priority List**. The Technology Priority List will be developed by the Technology Investment Council and will reflect statewide issues and priorities set by the Governor and the General Assembly. The Technology Priority List will not drive the business of the State, but instead will be a reflection of the critical business decisions being made by the leaders of the State.

The Technology Priority List will be matched annually with a level of funding dictated by the Governor and the General Assembly. The product of the Technology Priority List and the funding level will be the **Technology Budget Plan**. The Budget Director, CIO, and Technology Investment Council will, as necessary, evaluate marginal projects and initiatives that are at the point of not fitting within the total appropriation level. The CIO will act as an honest broker of the projects and assist in making the final determination of priorities to fund. The appropriation levels shall be set by the Governor through the Budget Director, the Joint Finance Committee, and the Joint Committee on Capital Improvement Projects in coordination with the current state budgeting process and procedures.

The Technology Budget Plan shall serve as the blueprint for the CIO and the Department of Technology and Information (DTI) to carry out their implementation role. It will be the responsibility of the CIO and DTI to evaluate and choose the appropriate technology to carry out the funded priorities. They will also be responsible for identifying the non-financial resources, either state or private, which shall be used to carry out the funded projects and initiatives. Ongoing progress and project management results shall be maintained and communicated back to the Technology Investment Council through the approved documentation process. These results will be used in the process for determining future funding.

B. Appropriations:

The Task Force recommends that statewide strategic priorities be the first consideration when undertaking new technology projects. The Technology Budget Plan, which pairs technology projects with funding, will be a reflection of the statewide strategies.

Federal grants and Appropriated Special Funds usually impose restrictions limiting their use to specific agency initiatives, which may be lower on the priority list yet increase the total available pool of resources for technology in the State. It would be appropriate for projects with such funding available to be added into the Technology Budget Plan even if they were not next on the priority list. It is imperative, however, that these projects and initiatives go through the approval and necessary review process, including an approved checklist of standards and benchmarks, that other projects go through before the Technology Investment Council. Even projects funded by Appropriated Special Funds or federal grants must comply with the relevant guidelines, standards, and benchmarks.

Projects that are below a certain dollar threshold (to be determined), do not impact other agencies, and do not require funds other than those in base budget authorizations will not need approval of the Technology Investment Council. However, these projects must comply with the checklist of standards, benchmarks, and guidelines referred to above.

All fund sources used for technology, other than base budget authorizations, shall be directed to a Technology Investment Account and not directly to the agency. The Technology Investment Account will provide the Technology Investment Council with a pool of resources to match with technology priorities. Both the Bond Committee and the Joint Finance Committee may make appropriations directly to the Technology Investment Account. The tracking for the Technology Investment Account will also show, in addition to General Fund expenditures on projects, expenditures of Special Funds and federal funds.

C. Tracking:

At the onset of a project, there will be a baseline uniform cost/benefit analysis in place. There will be a project plan approved by the Technology Investment Council. Actual progress will be measured against the project plan.

Projects are often funded in multiple lines and over multiple years. Although these funds are identifiable in the accounting reports, as they are expended, the project name is sometimes different than the accounting description. Presently, there is not a uniform consistent method for tracking project expenditures against the original budgeted amounts. This problem is exacerbated when funding is over multiple years and when a project is funded in phases.

The use of a consistent project funding schedule in the Technology Budget Plan will show actual appropriations compared to expenditures. Funding for prior, current, and

future years will be shown as well as requested funds compared to actual funds. Currently, there is no such project fund tracking schedule in use.

State agencies do not regularly perform needs assessments and risk analyses for technology projects. As a result, quarterly reporting requirements are not linked to the expenditure of funds nor do they tie into the appropriations process. The General Assembly is not presented with uniform project proposals or status reports when making funding decisions.

Currently, there is often no post implementation review upon completion of a project. Such a review should be compared to an original cost/benefit and risk analysis and would also reflect the total project cost.

The Task Force recommends that funding not be disbursed to a project unless satisfactory completion of status reports are supplied to the Technology Investment Council showing the project is either on track or justifiably in need of additional funding. Furthermore, agencies, with the help of DTI, must complete a post implementation review prior to having new projects placed on the Technology Priority List. The project tracking schedule would indicate that the project had been completed and show the entire appropriation by year, as well as serve as a useful tool for policy makers. To the extent that agencies lack the ability to perform cost/benefit analysis, risk assessment, and other requirements as developed by the Technology Investment Council, appropriate training shall be developed so as to provide those skills to the individuals tasked with meeting the expectations of the Technology Investment Council.

The Task Force recognizes the need to emphasize cost/benefit analysis, project milestones, post implementation review and the urgent need to establish true accountability in the management of IT projects. The Task Force believes one of the reasons that so many projects have fallen short of expectations is due to a lack of accountability.

5. Technology Employees

The State of Delaware, along with most private and public sector employers, has struggled to attract and retain qualified employees, particularly in the technology arena. A tight labor market, a lack of students trained in technology who can also understand the business context in which technology is to be used, as well as an inflexible compensation and personnel system all contribute to the State's difficulties.

The Department of Technology and Information (DTI) must provide a dynamic, innovative, and rewarding environment for its employees. It should not have the restrictions of the Merit System and State pay plan.

Because technology is changing so rapidly, the State needs the greatest possible flexibility in fashioning a technology workforce. Merit System procedures for hiring, classifying, compensating, promoting, and otherwise dealing with employees limits this flexibility.

Because the Task Force is sensitive to the budget constraints facing the State, it is not recommending a huge infusion of money. The Task Force is recommending flexibility, accountability, and a system that recognizes success.

To make DTI an agency capable of promoting and rewarding the excellence already existing within the State while attracting the best and brightest employees, the Task Force recommends the following four initiatives:

1. DTI should exist as an organization exempt from the Merit Rules. New and vacant positions will automatically be exempt. This exempt status will permit employees to transition in and out of the agency at a more rapid pace, thus ensuring a capable, well-trained workforce at all times. There will be no mandate to retain under-performing employees. In addition, the classification process for the Merit Comparable positions must be streamlined. The ability to adapt job titles, functions, and responsibilities quickly to meet the technology needs of the State is crucial.

2. The salary structure for the employees of DTI should be unique. The Task Force recommends that, with the help of other state agency representatives, a pay plan be adopted which allows employees to be promoted and paid more as their relevant skill level, responsibility, and productivity increase. This will allow DTI to better position existing employees for future performance as well as attract new IT talent with the promise of advancement. Furthermore, this salary structure should provide for enhancement pay when major short term goals are achieved on time and on budget as well as provide the ability to retain critical skill sets.

3. DTI employees should see a path for advancement. Along with a new pay structure, there should be career ladders geared specifically for the organizational structure of DTI. Employees will have new opportunities to grow if they contribute to the agency's mission and goals. No longer will employees need to jump from job to job or agency to agency but rather, commitment and performance will have rewards within DTI.

4. The training ground in DTI should be top notch. DTI should focus its training efforts on the right people matched with the correct job responsibilities. Additionally, partnerships with local educational institutions will provide an ongoing source of new IT employees at the

entry level. Through training programs these employees will be able to continually advance.

IV. IMPLEMENTATION GUIDELINES

The Department of Technology and Information (DTI) should come into existence on July 1, 2001. At that time, any vacant positions in OIS will be transferred to DTI. The CIO/Secretary of DTI will simultaneously have responsibility for DTI and OIS.

All new positions will be created and filled within DTI and new contracts will be signed within DTI. OIS will not fill or create new positions and will not enter into new contracts. All positions within OIS which become vacant will move to DTI. Employees in OIS will have an opportunity to:

a.) be considered for a position in DTI or
b.) remain in OIS until it ceases to exist or
c.) move to the organization selected to outsource the relevant function or
d.) find another position in State government consistent with the Merit Rules

OIS will cease to exist on June 30, 2003, and all employees remaining in OIS on this date will have all rights under the Merit Rules. Layoffs of employees governed by the Merit Rules are not an option, except in accordance with these rules.

V. APPENDIX

EXECUTIVE ORDER NO. 2

WHEREAS Delaware's Office of Information Services was originally created in an effort to improve the quality of information technology services provided to Delaware state government, and

WHEREAS there is a consensus that the present organization and mission of the Office of Information Services have not created the desired results, and

WHEREAS it is important that an independent group examine means by which the state can reorganize the Office of Information Services in order to ensure that the office fulfills its original purpose,

I, RUTH ANN MINNER, GOVERNOR OF THE STATE OF DELAWARE, HEREBY ORDER on this Fourth Day of January, 2001:

1. The Governor's Information Services Task Force is hereby created for the purpose of recommending statutory and organizational changes in the Office of Information Services and in the management of information and information technology in the state government as a whole, with the goal of improving the quality of information technology services enjoyed by Delaware state government.

2. The Task Force shall consist of eight members, who shall be selected as follows:

a. One representative of the Delaware House of Representatives and one representative of the Delaware State Senate.

b. The State Treasurer, who shall (with his consent) serve as chairman of the Task Force.

c. Four public members with experience in the field of information technology, who shall be appointed by the Governor.

d. A representative of a state government agency that uses information technology services, who shall be appointed by the Governor.

3. Staff support for the Task Force shall be provided by the Office of Information Systems and, with the consent of the State Treasurer, the State Treasurer's staff. Staff of the Office of Information Systems are instructed to comply with any request made by the Task Force or its chairman.

4. The Task Force shall provide recommendations and proposed legislation to the Governor no later than June 1, 2001.

5. The Task Force is directed to consider any manner in which the management of information and information technology services might be improved, and include within its recommendations the statutory mandate of OIS, the organizational structure of OIS, the tasks assigned to or assumed by OIS, the management of technology and information by state agencies and the division of such efforts between OIS and such agencies, and the outsourcing of information technology functions.

Ruth Ann Minner (SIGNATURE)
Governor

(STATE SEAL)

Attest:

Dr. Harriet Smith Windsor (SIGNATURE)
Secretary of State

BIBLIOGRAPHY

Barrett, Katherine and Richard Greene. Powering Up: How Public Managers Can Take Control of Information Technology. Washington, D.C.: Congressional Quarterly, Inc., 2001.

Battles, Brett E., David Mark, and Christopher Ryan. "An Open Letter to CEO's: How otherwise good managers spend too much on information technology." The McKinsey Quarterly (1996) Number 3.

Brown, Justine. "Beating the IT Workforce Blues." Government Technology Nov. 2000: 31, 90-91.

Caldwell, B. and M. McGee. "DuPont Goes Outside", Dec. 16, 1996. <www.informationweek.com/a610/10iudup.htm>

"Chief Findings Of Multi-Year Study of Information Technology at Global 2000 Companies: Worries About Prioritization, Increases in Complexity and Difficulty Recruiting Top Talent; Hackett Benchmarking & Research Study Finds More CIOs Gaining Strategic Role; Most Remain Hamstrung by Outdated Mindsets, Processes." PR Newswire Association, Inc. March 7, 2001.

Cohodas, Marilyn. "Calling All Techies." Governing June 2000: 74.

Dempsey, Jed and Robert Dvorak, Endre Holen, David Mark, and William F. Meehan III. "Escaping the IT abyss." The McKinsey Quarterly (1997) Number 4.

Dibya Sarkar. "Government IT spending on rise." CIVIC.COM http://fcw.com/civic/articles/2001/0319/web-fsi-03-20-01.asp Accessed on April 12, 2001

Dvorak, Robert, Endre Holen, David Mark, and William F. Meehan III. "Six principles of high-performance IT." The McKinsey Quarterly (1997) Number 3.

Esteban, Parra. "Still Wanted: High-Tech Workers." News Journal. April 16, 2001.

Feeney, David F. and Leslie P. Wilcocks. "Core IS Capabilities for Exploiting Information Technology." Sloan Management Review, Massachusetts Institute of Technology, Vol. 39, No. 3, Spring 1998.

Field, T. "10 Years that Shook IT." CIO Magazine Oct. 1, 1999.

Field, T. "Connecticut Antes Up." CIO Magazine April 1, 1999.

Field, T. "High Anxiety." CIO Magazine Sept. 1, 2000.

Hanson, Wayne. "Toppling the Stovepipes." Government Technology Dec. 2000: 14-17.

Harvard Policy Group. "Eight Imperatives for Leaders in a Networked World." 2001.

"Issue Focus Report: The Role of the State Chief Information Officer." NASIRE: representing Chief Information Officers of the States. July 2000. <https://www.nasire.org/publications/index.cfm> Accessed on March 12, 2001.

Lapland, C. "Insiders' View on When to Look Out." PSINET eBusiness Fall 2000.

Lindamood, G. "Getting IT: Having a CIO and treating the CIO like a CIO ain't the same thing." Government Technology June 2000.<www.govtech.net> Accessed on February 21, 2001.

Lynch, Rebecca. "Hands On, Hands Off." CIO Magazine Aug. 15, 2000.

McKay, Jim. "North Carolina's IT-Savvy Legislators." Government Technology Nov. 2000: 22-23, 68.

National State Budget Officers. "Special Feature: State Spending on Information Technology." The Fiscal Survey of the States: December 2000. <www.nasbo.org> Accessed on March 20, 2001.

Perlman, Ellen. "Taking Tech Private." Governing May 2000: 20-25

Perlman, Ellen. "Moving IT Out." Governing August 2000.

Perlman, Ellen. "Managing Technology Policy, Politics and Leadership", Governing, October 2000: 74-76, 80..

Perlman, Ellen. "The IT Czar of Main Street: Local governments are giving CIOs new policy-making and leadership roles." Governing Jan. 2001: 31-33.

The San Diego County Information Technology Project. <www.co.san-diego.ca.us/cnty/cntydepts/CAR/projects/itp/>.

"State IT Appropriations." Governing: State and Local Source Book – 2001 March 2001: 116.

"Statement of Aldona Valicenti President, NASIRE - representing Chief Information Officers of the States before the committee on government reform -Subcommittee on Technology and Procurement Policy United States House of Representatives April 3,

2001." <https://www.nasire.org/aboutNasire/members/valicenti_testimony_04-03-01.cfm> Accessed on April 10, 2001.
State of Delaware. Annual Technology Expenditure Report. Office of Information Services. August 2000.

State of Georgia. Office of Planning and Budget. Review of Administrative and Financial Practices by KPMG, LLP. Atlanta, GA. <www.State.ga.us > Accessed on Feb. 10, 2001.

State of Kansas Information Technology Executive Council. "Information Technology Policy 2400 – Project Approval." <www.accesskansas.com> Accessed on March 9, 2001.

State of Kansas Information Technology Executive Council. "Information Technology Policy 2500 – Project Status Reporting." <www.accesskansas.com> Accessed on March 9, 2001.

State of Kansas Information Technology Executive Council. "Information Technology Policy 2530 – Project Management." <www.accesskansas.com> Accessed on March 9, 2001.

State of Kentucky. "Chief Information Officer." Kentucky Revised Statutes. KRS 11.511. Repealed, reenacted, and amended 2000. Ky. Acts Ch. 506, sec. 6, effective July 14, 2000; and ch. 536, sec.6, effective July 14, 2000.

State of Kentucky. "IT Governance Team." <http://www.state.ky.us/agencies/citti/governanceteam.htm> Accessed April 10, 2001.

State of Kentucky. "Kentucky Information Technology Advisory Council." Kentucky Revised Statutes. KRS 11.513. Created 2000 Ky. Acts ch. 506 sec. 7, effective July 14, 2000 and ch. 536, sec. 7, effective July 14, 2000.

Stivers, Sam R.. "What Do OIS Customers Expect." Summary of Interviews Conducted by Sam R. Stivers Associates. Jan. 2, 1996.

Barrett, Katherine and Richard Greene with Michele Mariani. "Grading the States 2001: A Management Report Card." Governing Feb. 2001: 20-108.

U.S. Department of Commerce. Economics and Statistics Administration. Office of Policy Development. The Emerging Digital Economy II June 1999 by David Henry et. al. Washington, D.C. <www.ecommerce.gov> Accessed Jan. 15, 2001.

U.S. Department of Commerce. Office of Technology Policy. America's New Deficit: The Shortage of Information Technology Workers July 1999 by Graham R. Mitchell et. al. Washington, D.C. <www.ta.doc.gov > Accessed Feb. 20, 2001.